## Message

From: Beck, Nancy [Beck.Nancy@epa.gov]

**Sent**: 11/21/2017 12:30:13 AM

To: Dourson, Michael [dourson.michael@epa.gov]

Subject: FW: Chlopyrifos

Attachments: CCCEH Cohort Studies 11 20 17.docx

FYI

From: Keller, Kaitlin

**Sent:** Monday, November 20, 2017 7:16 PM **To:** Beck, Nancy <Beck.Nancy@epa.gov>

Cc: Bertrand, Charlotte < Bertrand. Charlotte@epa.gov>

Subject: Re: Chlopyrifos

Yes, few used the whole cohort since mothers were enrolled on a rolling basis, but all of these also come from the same overall cohort of ~725 African American and Dominican mothers in NYC.

Sent from my iPhone

On Nov 20, 2017, at 7:13 PM, Beck, Nancy < Beck. Nancy@epa.gov > wrote:

You mean the same cohort that looked at chlorpyrifos was also used for all these studies? Just want to be clear, thanks!!

Nancy B. Beck, Ph.D., DABT

Deputy Assistant Administrator, OCSPP

P: 202-564-1273
M: Ex.6 Personal Privacy (PP)
beck.nancy@epa.gov

From: Keller, Kaitlin

**Sent:** Monday, November 20, 2017 7:10 PM **To:** Beck, Nancy < <u>Beck, Nancy@epa.gov</u>>

Cc: Bertrand, Charlotte <Bertrand.Charlotte@epa.gov>

Subject: RE: Chlopyrifos

Nancy,

You had asked about the other health effects Perera et al. studied regarding the Columbia cohort. It took me a few extra days, but below is some basic information about the Columbia cohort, and attached is information (title, cohort subset, measures and outcomes) on the ~110 publications on Columbia cohort from FP Perera and others. I highlighted those on pesticides in green (a few were on pyrethroids, not just OPs) but you'll notice the vast majority of the publications are on PAHs, ETS, and allergens. I didn't see any on PCBs, but perhaps others were granted access to the data; this is just based off of Columbia's list. My shorthand got a little informal, but I can add details, or summarize from here, just wanted to send something your way first. It's also worth noting that there were two other cohorts at the same time. One is Krakow, Poland seems to have been designed similarly, and the cohorts were compared at times, though I don't recall there being pesticide exposure information for that one.

## Exposures assessed:

- Polyaromatic hydrocarbons (PAH)
- Environmental tobacco smoke (ETS)
- Allergens
- Organophosphates
- Bisphenol A
- Phthlates
- Lead; Ambient metals

## Overall Cohort Characteristics (1998-2006):

- 725 pregnant women over time
- between 1998 and 2006 into a prospective birth cohort study conducted by the Columbia Center for Children's Environmental Health (23–25).
- Multi-ethnic populations: African-American, Dominican, Hispanic, Mexican-American, White
- Younger mothers,18-35
- Low prevalence risky health behaviors, co-morbidities (criteria)
- Sought prenatal care (<20-26 weeks)</li>
- · Residency requirement
  - Deliver participating hospitals
- · No diabetes, hypertension, HIV, history birth defects
- No smoking, illegal drug use
- Even though all the subjects are drawn from the same parent population, the numbers of subjects in each of the analyses varied due to differences in the size of the subset with complete measures at the time of each report and the availability of data for each of the different endpoints, very few done based on random selection from cohort.

From: Beck, Nancy

**Sent:** Tuesday, November 14, 2017 7:18 PM **To:** Keller, Kaitlin <a href="mailto:keller.kaitlin@epa.gov">keller.kaitlin@epa.gov</a>

Cc: Dourson, Michael < dourson.michael@epa.gov>; Bertrand, Charlotte < Bertrand.Charlotte@epa.gov>

Subject: RE: Chlopyrifos

Thank you Kaitlyn!

Nancy B. Beck, Ph.D., DABT

Deputy Assistant Administrator, OCSPP

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From: Keller, Kaitlin

**Sent:** Tuesday, November 14, 2017 5:49 PM **To:** Beck, Nancy < <u>Beck, Nancy@epa.gov</u>>

Cc: Dourson, Michael <dourson.michael@epa.gov>; Bertrand, Charlotte <Bertrand.Charlotte@epa.gov>

Subject: RE: Chlopyrifos

Nancy,

Attached are the last three Chlorpyrifos SAP reports. Also attached is the 2016 OPP systematic review and an appendix document from the 2012 SAP that I thought looked like a good high level snapshot of the different data.

I'm also about to send 4 additional emails with 1) Columbia studies, 2) CHAMACOS studies, 3) Mt. Sinai studies, 4) other relevant studies.

I'm still working on the other Columbia studies using the same cohort, will have something before the Friday briefing though.

Charlotte & Mike—Let me know if you'd like hard copies and we'll get those to you tomorrow.

Thanks, Kaitlin

From: Beck, Nancy

Sent: Friday, November 10, 2017 2:20 PM To: Keller, Kaitlin < keller, kaitlin@epa.gov>

Cc: Dourson, Michael <dourson.michael@epa.gov>; Bertrand, Charlotte <Bertrand.Charlotte@epa.gov>

Subject: Chlopyrifos

## Kaitlyn,

Before next weeks briefing can you send us all the key epi studies from the 3 cohorts (Columbia, CHAMACOS, Mt Sinai) that were evaluated as part of the assessment? It would also be helpful if you could send the last 3 SAP reports on different parts of the review where the epi data was used. I think I have all this but my computer access is limited. I won't need printouts as I have them already.

Also, if you have time, if you could do a pub med search to find other studies by Frederica P Perera that used the same cohort to look at health effects of other compounds that would be helpful. This will take looking in the methods sections of the studies you find. If you search on prenatal that will limit further. And then focus on her studies that looked in NY. To start, a list of studies, a description of each cohort and the chemicals and endpoints evaluated would be helpful. Perhaps we have librarians that can assist here?

Thanks.

Sent from my iPhone, please excuse typos.